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Ḥorvat Zikhrin – 1987/1989

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Three additional seasons of excavations (*ESI* 4:117–119) were carried out in 1987–1989 at Ḥ. Zikhrin on behalf of the Archaeological Survey of Israel and the Institute of Archaeology of Tel Aviv University. The work was directed by M. Fischer, with the participation of S. Giveon (chief assistant), O. Shoshner (registrar), Y. Weinberg (photographer), B. Kennedy and A. Rosenberger (surveyors), A. Kindler (numismatic consultant) and students in the Department of Classical Studies of Tel Aviv University. The project received assistance from the Pioneer Concrete Company and the Kleinstub Fund of the Department of Classical Studies. A survey of the water supply system of the site carried out by Ts. Tsuk accompanied the excavations.

Area A (Fig. 48). The area of the monastery (A/1; *ESI* 3:113–114) was re-examined and architectural elements were recovered, including remains of piers and impost capitals, one of which bore an incised cross. The potsherds and coins collected in its foundations indicate that the building was erected in the late 4th–early 5th centuries. Numerous fragments of Late Roman pottery, including bases decorated with crosses, were found in a rock-cut pit under the east room of the monastery. One of these bowl fragments bore on its bottom a seal impression representing a running stag (Fig. 49).

Area E (3 dunams; Fig. 50). Three building complexes connected with the wine press and house in Area D (*ESI* 3:114) were excavated. These are residential complexes built in the Byzantine period, which were enlarged and modified in the Early Islamic period (7th–8th centuries CE). In Complex E/I, three ashlar-built rooms were uncovered (E/Ia), as well as a courtyard with two rock-cut cisterns. Basalt vessels, a stone mortar for the domestic extraction of olive oil and a bronze cosmetic spoon were found in these rooms. In the Early Islamic period, a wall was erected which enclosed the building, the courtyards and the adjoining rooms.

A bathhouse was excavated in a Byzantine period house which was part of Complex E/II. All that remained were the *caldarium* (E/IIb), with its pillars of square bricks and clay pipes fixed to the walls with plaster, and the mosaic-paved adjoining room (E/IIc), which was connected to the *caldarium* by an arched doorway. Roman pottery was recovered in the foundations and in adjoining squares; it is possible that building operations in this area began in that period. In the Early Islamic period, the rooms of the baths were incorporated into a building whose rooms (shops?) opened onto an alley in the south part of the area. These rooms, which had vaulted ceilings resting on corner piers, gave access on the north to a courtyard, which contained a cistern with nearby hollows for placing jars. The mosaic-paved room (E/IIc) continued to serve in this period as a passage between the two parts of Complex E/II, while the *caldarium* (E/IIb) was turned into a kitchen or storeroom. Many vessels of the Kh. el-Mafjar type were found in this room, including hydriae, jugs, pilgrim flasks, juglets and bowls (Fig. 51). A lamp fragment bears an inscription, stamped in reverse in Early Arabic script, which begins with the well-known formula "this lamp will light" (Fig. 52).

The Byzantine building phase in Complex E/III consists of a series of rooms and a courtyard to the south with a cistern. In the Early Islamic period another row of rooms was built south of the courtyard.

Area F (Fig. 50). In the Early Islamic period, residential rooms and storerooms were erected in the church (F/I) and adjoining its north wall. These incorporated reused stones and architectural elements from the church. Two main building phases of the Byzantine period could be identified in probes dug in the baths (F/III). In the second phase, changes were made in the *frigidarium* and *tepidarium*; their level was raised and the north part of the *tepidarium* was paved with mosaics, like the *frigidarium* and the *apodyterium*.

Area I (Fig. 48) is located *c.* 100 m northeast of the settlement. Here, one of the largest cemeteries serving the inhabitants of the area in the Second Temple and Byzantine periods was discovered. A *kokh* burial cave of the Second Temple period and numerous rock-cut *arcosolia* tombs of the Byzantine period were identified. The *kokh* cave (I/1; Fig. 53), cut into the east hill slope, is similar to

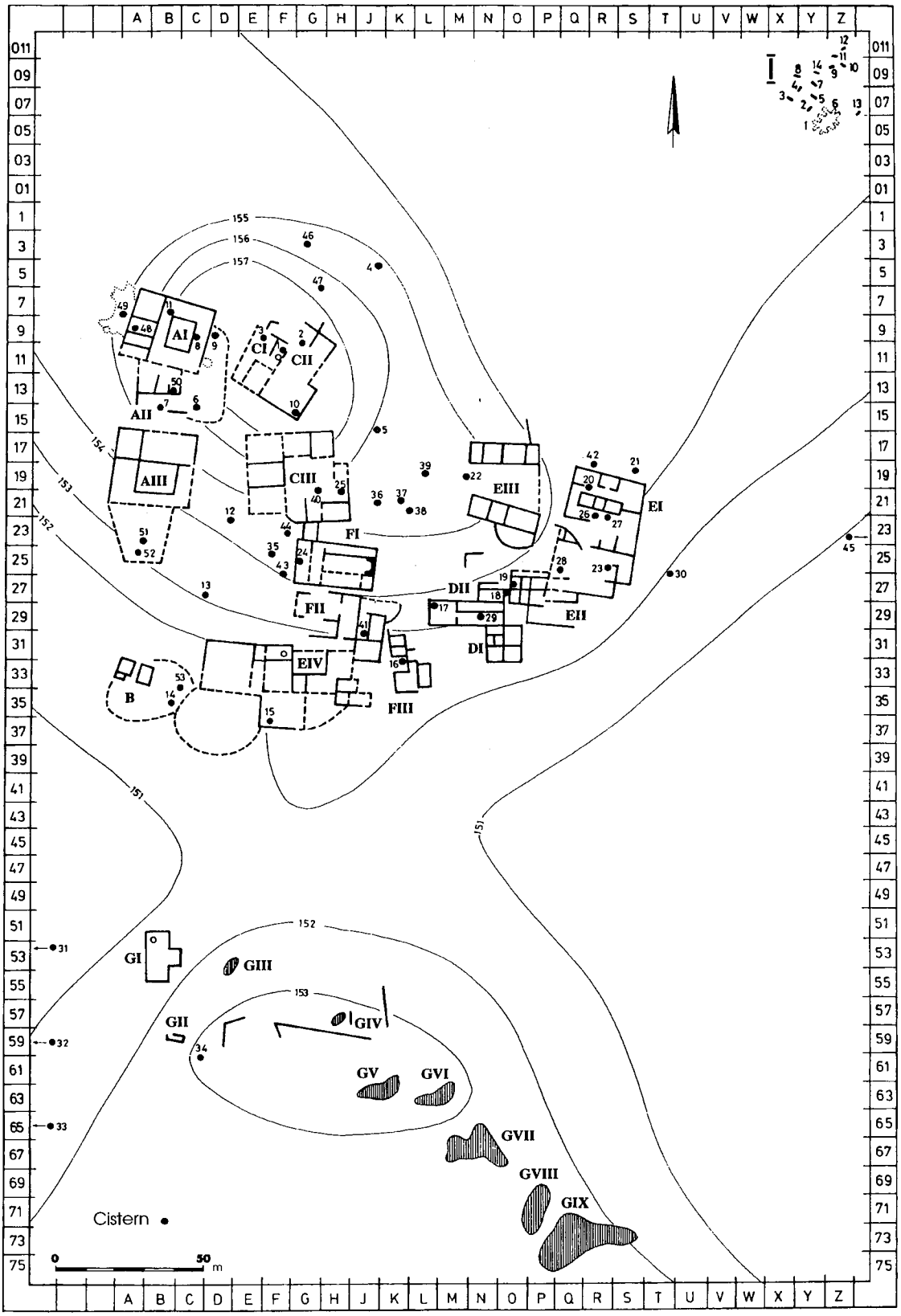

Fig. 48. H. Zikhrin. Map of excavation areas.

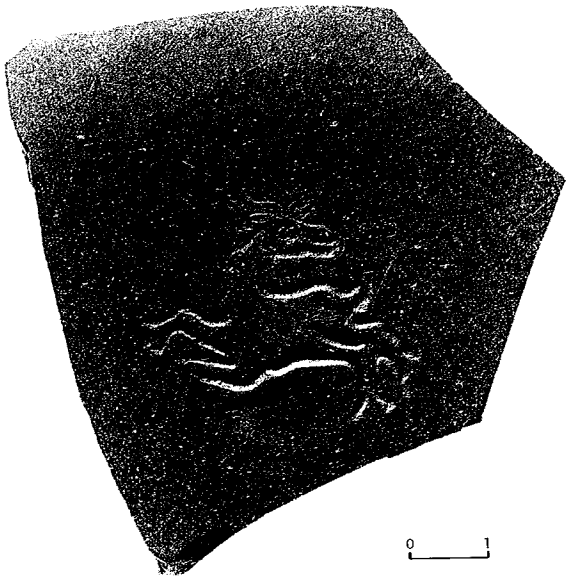

Fig. 49. Ḥ. Zikhrin. Area A, bowl fragment with stamp seal impression.

caves surveyed and excavated in Areas A and G. From the south, a rock-cut passage (length 1.00 m) led to a small opening (width *c.* 0.50 m), whence two steps led down into the cave, which contained a central burial chamber (2.10 × 2.70 m; height 1.70 m) with a standing pit (1.30 × 1.80 m; depth 0.40 m) and 13 *kokhim*. Most of the *kokhim* are of almost identical size (0.50 × 2.00 m; height 0.60 m), with the exception of those in the south wall (length 0.90 and 1.50 m), which were unfinished or served other purposes. The finds in the standing pit, which included Herodian-type lamps, Roman lamps with disks, ossuary fragments, broken glass bottles and metal objects, point to a date between the 1st century BCE and the 2nd century CE for the use of the cave. Byzantine potsherds were found in the upper ash layers which filled the cave.

The *arcosolia* tombs (Fig. 54), dated to the 4th–7th centuries CE, are hewn in various directions and sizes (0.60–0.70 × 1.70–2.00 m; depth

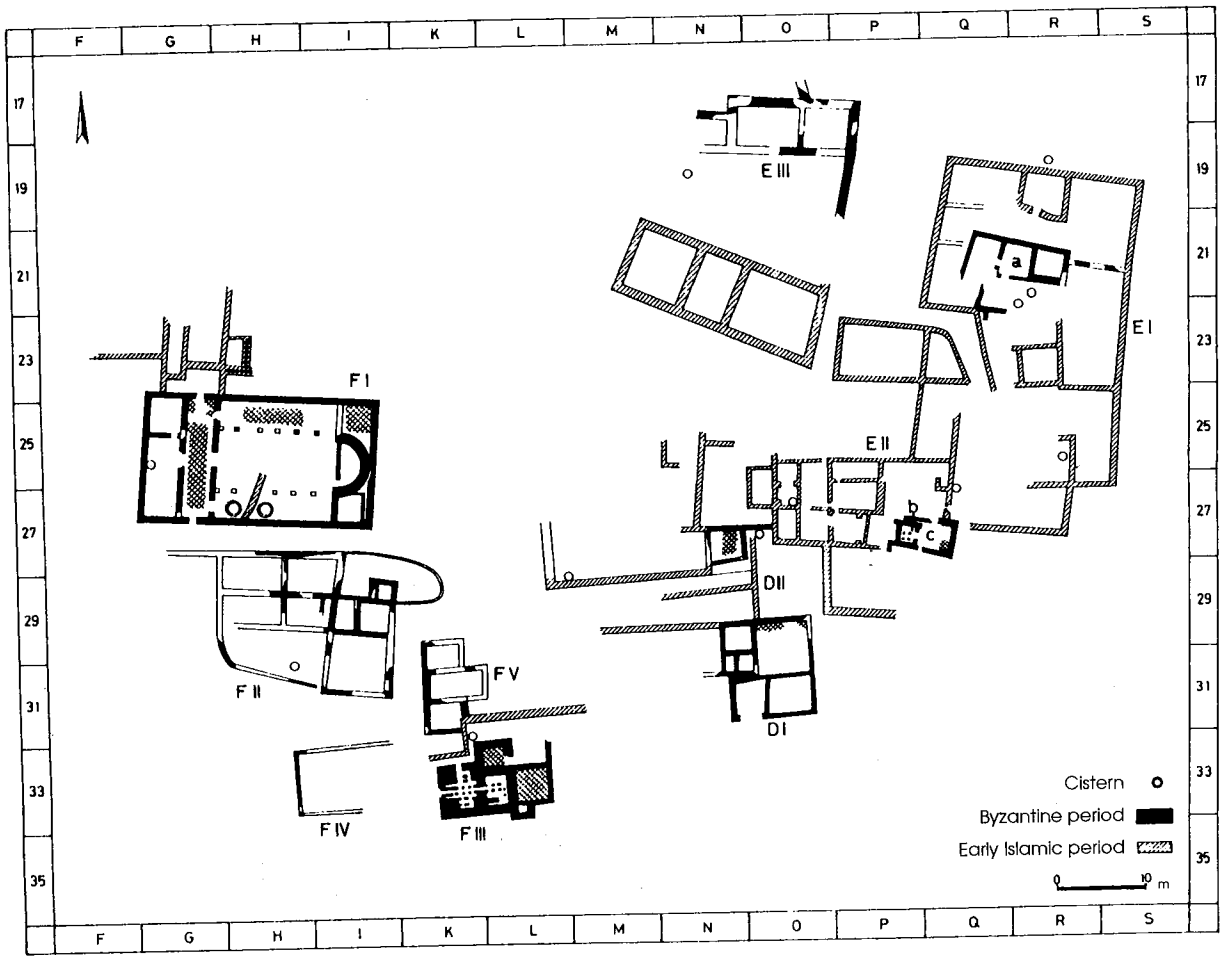

Fig. 50. Ḥ. Zikhrin. Plan of Areas D, E, and F.

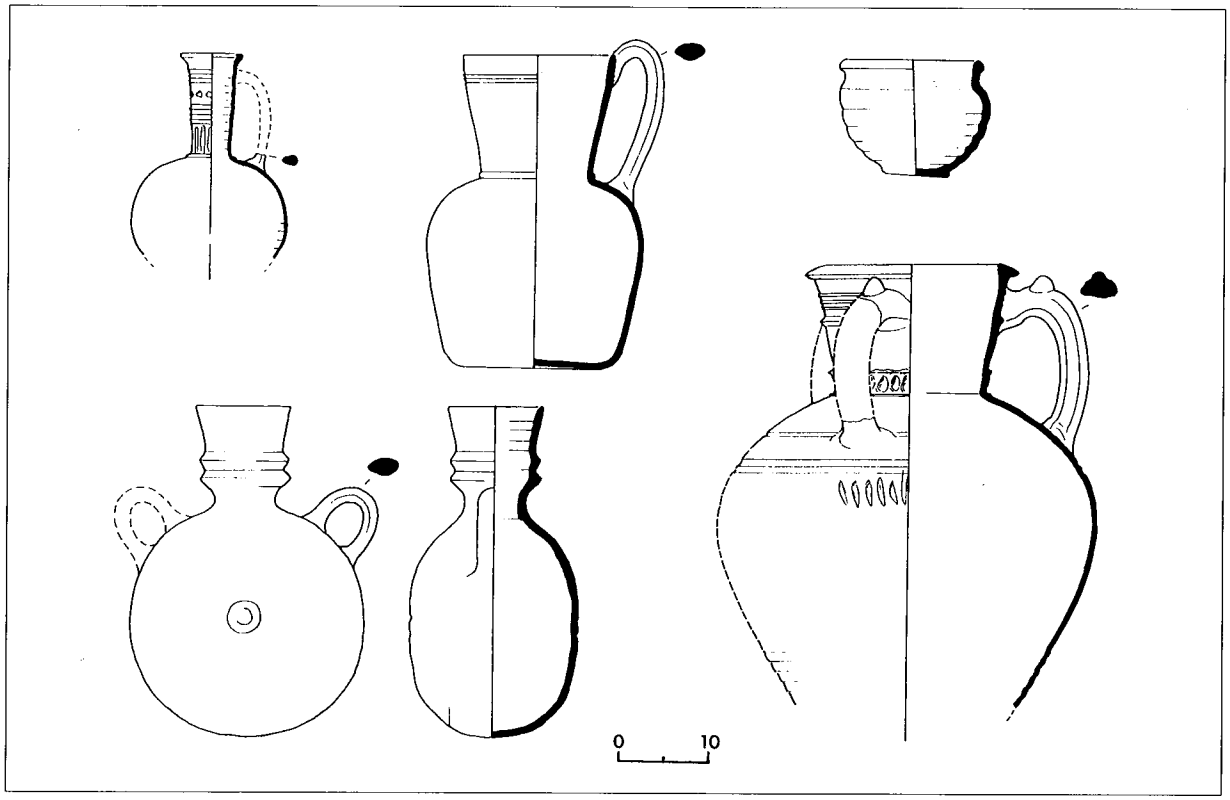

Fig. 51. Ḥ. Zikhrin. Area E, pottery of Kh. el-Mafjar type.

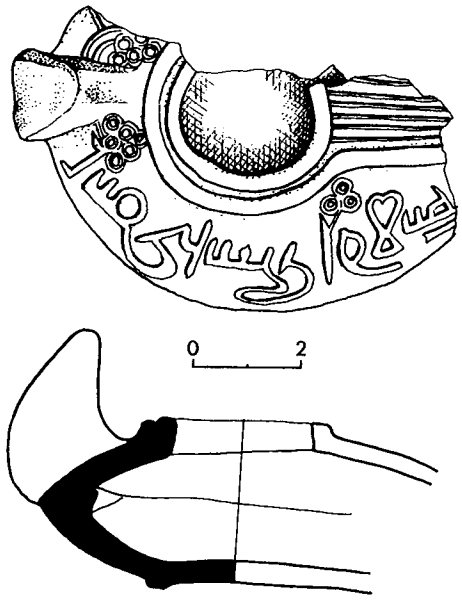

Fig. 52. Ḥ. Zikhrin. Fragment of inscribed lamp.

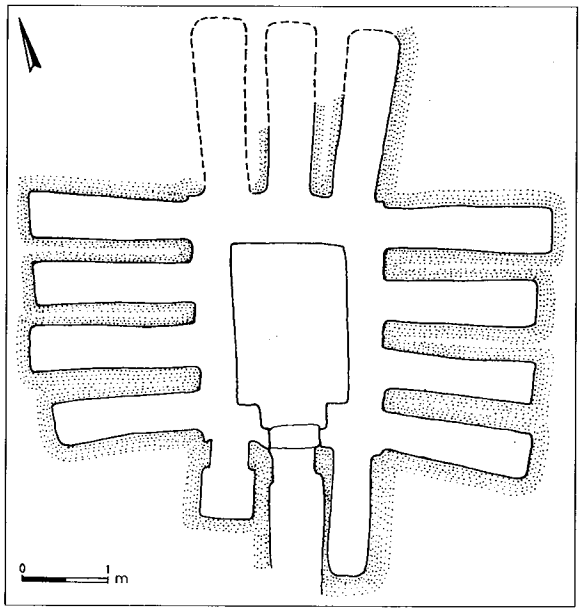

Fig. 53. Ḥ. Zikhrin. Burial cave (I/1).

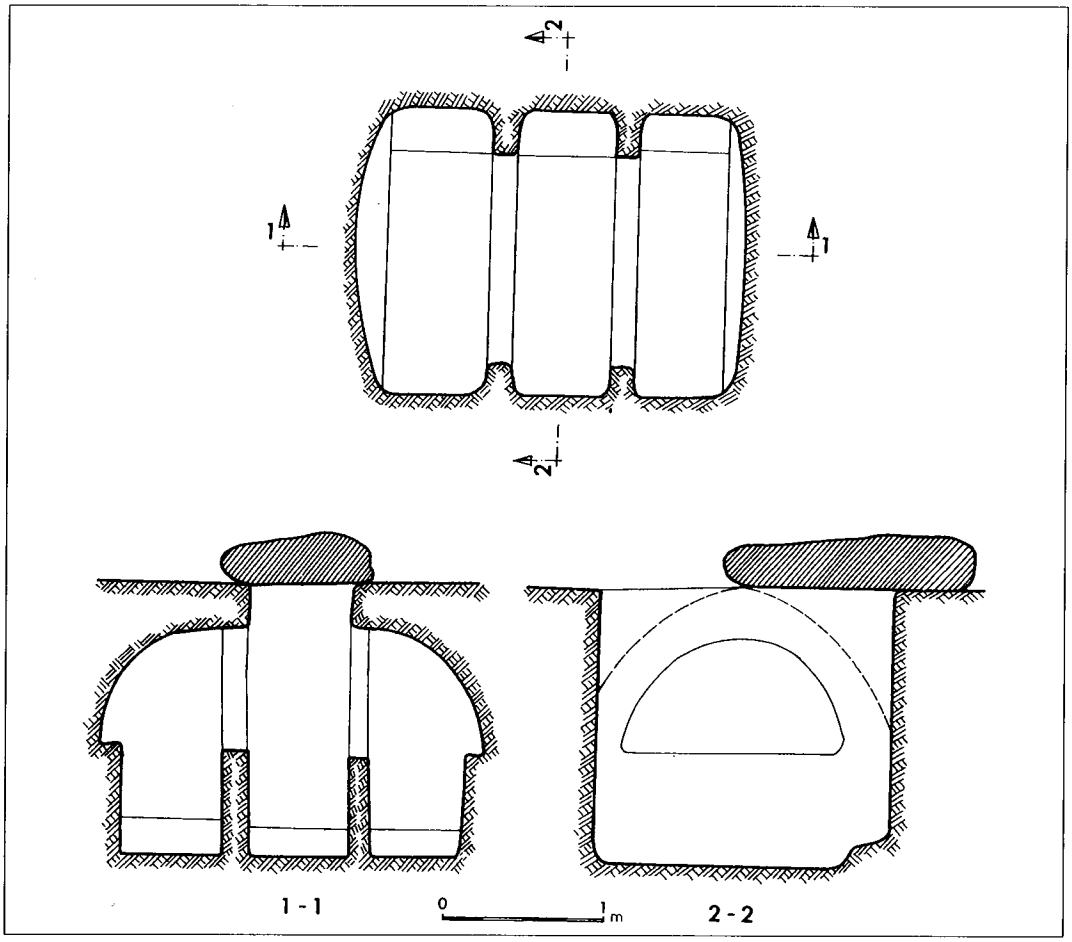

Fig. 54. Ḥ. Zikhrin. Area I, *arcosolia* tomb.

1.70–2.00 m). They contain three burial troughs (depth 1.20 m) with rock-cut headrests. Rock-cut *arcosolia* separate the lateral troughs from the central one. Each grave was covered with two stone slabs; one (length 1.50 m) was stuck with plaster to the tomb walls, while the second (length 0.80 m) was movable. The finds in these tombs include pottery fragments, glass vessels and a 2nd century CE coin.

With the completion of the excavations at Ḥorvat Zikhrin, the following results can be summarized: The site was occupied from the late Second Temple period to the Middle Ages. The farmhouses, built when the settlement was established, were probably abandoned at the time of the First Revolt. In the Roman period (2nd–3rd centuries CE), activities were resumed at the farms, due to their proximity to the Roman road which led from Antipatris to Jerusalem (a milestone of this road was found at the edge of the site). The settlement reached the peak of its development in the Byzantine period, when it extended over an area of about 30 dunams and included a monastery, a hostel (Areas A and C), a church, a bathhouse (Area F) and residential quarters (Areas F and E), as well as large wine and oil presses along the outskirts (Areas B, D and G). The site in this period is similar in character to a number of other settlements that have been surveyed in the vicinity of Rosh Ha'ayin, all of which seem to have flourished in the void left by the destruction of Antipatris in the earthquake of 363 CE. In the Early Islamic period, the entire area of the site was utilized for residential complexes. However, in the Mamluk period, the extent of occupation was considerably reduced and consisted of the area of the monastery, the church and the northeast hill. In the Ottoman period, the population dwindled further and existed among the ruins of the monastery on the central hill.

Survey of Cisterns

Tsvika Tsuk

In March and May 1985, April 1988 and July 1989, a survey of the cisterns at Ḥ. Zikhrin was carried out concurrently with the excavations at the site. The work was directed by Ts. Tsuk on behalf of the Research Center for Ancient Water Supply Systems, with the participation of D. Artzy, R. Artzy, N. Gaash, R. Dagan, G. Kedem and O. Kerman.

Fifty-three cisterns were recorded at the site (Fig. 48). Of these, thirty were investigated and surveyed. An examination of the general location, the contents, the plaster and the sherds set into the plaster, showed that twenty-four of the cisterns dated from the Byzantine period, two were later than the Byzantine period and one dated from the Ottoman period. Evidence of earlier use was discerned in five of the Byzantine cisterns and of later use in four of them. Among the cisterns investigated, five were bell-shaped, four were round, two were shaped like a double bell, one was of a round bell-shape, one was pear-shaped and one oval. Six square cisterns with rounded corners, four rectangular cisterns, of which two had a barrel vault (Fig. 55), and an H-shaped cistern were also investigated. Some of the cisterns formed part of installations or complexes of public buildings in the settlement: an oil press, baths, the monastery and church complex.

The capacity of the cisterns ranged between 6.6 cu m and 237.4 cu m—an average of 46.5 cu m. According to the average annual precipitation at the site of 500 mm, and assuming that only half of the site's area drained into the cisterns and that only half of the precipitation could be stored in cisterns, the volume of water which could be stored annually on the site can be estimated at 3,750 cu m. Since *c.* 70% of the site has been excavated and assuming that the cisterns discovered in this area also represent *c.* 70% of the cisterns in the settlement,

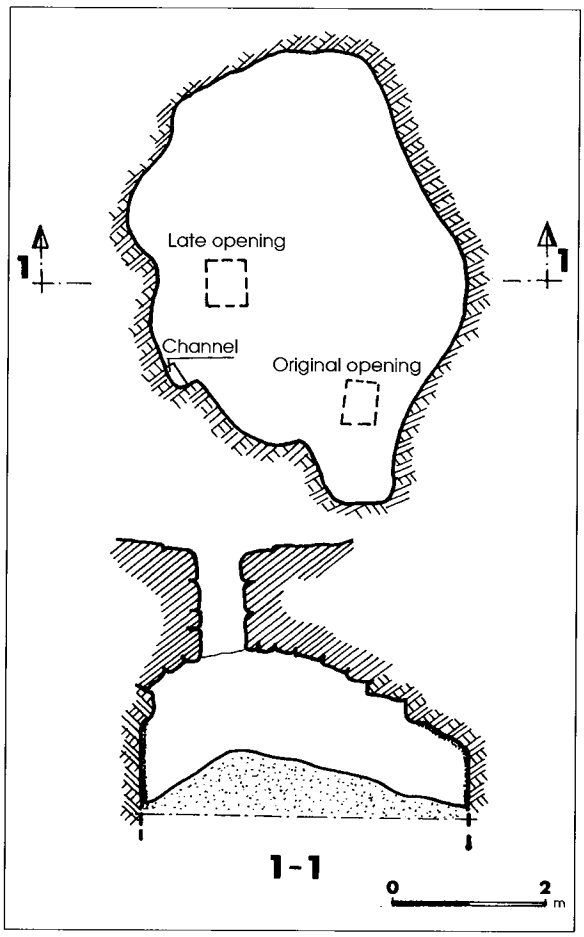

Fig. 55. Ḥ. Zikhrin. Cistern, plan and section.

there is probably a correlation between the total volume of the cisterns at the site and between the maximum volume of water which could be channeled into these cisterns. According to the calculations of the excavator, *c.* 400 persons lived on the site; accordingly, each inhabitant annually had at his disposal the large amount of 9.4 cu m of water.